

REMARKS

Enclosed herewith is a Declaration Under Rule 132 by one of the co-inventors in this application, Cheryl J. Brickey. The Declaration is offered as a means of confirming the meaning of various terms used in the optical arts and includes references to pertinent portions of the specification and the Ouderkirk reference. The Declaration explains how the various values and percentages referred to in optics are measured or calculated. It contrasts some of the terms and percentage values given in Ouderkirk to those in the present claims. Finally, it provides a skilled artisan's analysis of the divergence of certain of the terms in Ouderkirk relied on by the Examiner versus the language of the claims to this invention through the use diagrams and hypothetical examples.

Claims 1-4, 6-7, 11-14, and 19-20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Ouderkirk et al. (U.S. Patent No. 5,825,543, hereinafter "Ouderkirk"). The Examiner states:

Ouderkirk discloses a light diffuser (col. 15, line 40) comprising a thermoplastic layer (col. 32, lines 62-63) containing thermoplastic polymeric material and microvoids (col. 16, lines 51-55) having substantially circular cross-section (fig. 3) in a plane perpendicular to the direction of light travel having a diffuse light transmission efficiency of at least 65% (col. 32, lines 39-41, 50-53) and a light transmission greater than 80% (col. 29, lines 8-9).
(emphasis added)

"having substantially circular cross-section (fig. 3)"

Pertinent portions of the Examiner's quotation discussed below are underlined. The reference to fig. 3 as depicting the shape of voids being circular appears to be inaccurate. Figure 3 depicts various shapes that the disperse phase materials may take within the continuous phase. The disperse phase is not a microvoid. From Col. 3/lines 47-49, and from col. 10/line 32 et seq., it is clear that the cited figure shows disperse phase materials and not voids. Additionally, Ouderkirk refers to other optical films that contain elliptical voids at col. 2/lines 61-65. Although voids are mentioned in Ouderkirk, the patent is all about the mismatched phases and not about microvoids which are incidentally mentioned and never employed in any of the examples. Clearly, no void parameters are discussed.

“diffuse light transmission efficiency of at least 65%”

The col. 32 reference does not suggest a diffuse light transmission efficiency of at least 65%. Although it mentions 70%, it is referring to the total transmission of only the second phase of polarization. First of all, as described in Table 1 and Example 1 of the Declaration, the percent diffuse light transmission efficiency is a ratio of the diffuse output to the total output, or D/B. In contrast, claim 17 in col. 32 refers to the total transmission of the second polarization state which is the ratio of light output over light input for just one phase. It is not concerned with the efficiency in creating diffuse light nor is it concerned about all of the light rather than just one phase. It is B/A but only for one phase so it is not even total transmission. See the Declaration and in particular, the discussion about polarized light and Examples 3 and 4.

“a light transmission greater than 80%”

Finally, the Examiner relies on col. 29, lines 8-9 of Ouderkirk as showing a light transmission greater than 80%. The cited passage reads:

“The transmission was 87.1% and 39.7% for parallel and perpendicularly polarized light, respectively.”
(*emphasis added*)

Clearly, the Examiner has misread the passage because the 87.1 % figure is expressly limited to the parallel polarized light and not the total light. As the Declaration states, unless limited, a transmission percentage is of the total incident light. Thus, the total transmission would be the average of the two values or 63.4%.

The remaining rejections under 35 USC 102 depend on the Examiner’s interpretation of the Ouderkirk passages above and are therefore inappropriate.

Claims 5, 15-18 and 21-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ouderkirk in view of Aylward et al. (U.S. Patent No. 6,017,686, hereinafter “Aylward”). Claim 8 stands rejected under 35 U.S.C.103(a) as being unpatentable over Ouderkirk in view of Wu et al. (U.S.

Patent No. 5,346,954, hereinafter “Wu”). Claim 9 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Ouderkirk in view of Yamamoto et al. (U.S. Patent No. 5,502,011, hereinafter “Yamamoto”).

All of these rejections pertain to dependent claims and are inappropriate in view of the patentability of independent claim 1 for the reasons cited above.

The Examiner makes the following statements as to why the Applicants’ arguments filed February 4, 2005 are not persuasive:

“First, Applicant argues that Ouderkirk reference fails to specifically disclose a diffuser with microvoids having a substantially circular cross section in a plane perpendicular to the direction of light travel nor suggests a diffuse light transmission efficiency of at least 65%. In response Ouderkirk clearly discloses microvoids with substantially circular cross sections. While Applicant argues that those depicted in Fig. 3 are not microvoids, but rather “immiscible discontinuous phase polymer material,” Examiner asserts that such “discontinuous phase” material can be replaced by microvoids, as admitted by Applicant, to provide refractive differences (col. 2, line 57 – col. 3, line 8).”

It does not appear that Ouderkirk contemplates voids as constituting the “disperse phase” as the Examiner suggests. First, the passage cited by the Examiner teaches prior art failures when trying to use voids and mentions the difficulties of controlling the shape of the voids. Voids having elliptical shape are mentioned. Circular voids are not mentioned. Applicants admit that Ouderkirk acknowledges the possibility of having voids in addition to disperse phase particles and continuous phase polymeric materials. See col. 16/lns 52-62; and references to the “disperse phase particles” or “polymeric materials”(col 5/ln 22; col 5/ln 36; col 9/ln 30; col 10/ln 21; col 12/ln 65- col 13/ln 11). In summary, while voids are mentioned in Ouderkirk, they are not suggested as the “disperse phase” and the cross-section is not mentioned other than as elliptical.

The Examiner further states:

Furthermore, Ouderkirk clearly teaches a diffuse light transmission efficiency of at least 65% (col. 32, lines 39-41, 50-53). Applicant

argues that in Col. 32, lines 50-53, the reference recites “70% of light polarized orthogonal to a first polarization is transmitted, thereby saying only “at least 35% total light is transmitted.” However, examiner disagrees. First, nowhere in the claims is “total” light transmission efficiency disclosed. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicants believe that the claim terms are clear to one of ordinary skill in the art and that “diffuse light transmission efficiency” is defined at page 5/ line 22 of the specification and is consistent with the enclosed Declaration. “light transmission” means total of all light unless further modified by terms such as diffuse or specular. See the definitions at pages 5 and 27 which use the terms consistently. Also, see the enclosed Declaration for further clarification. Light transmission is a % of total output light divided by total input light. Diffuse light transmission efficiency is the percentage of diffuse output light divided by total output light.

The Examiner then states:

Second, even if it were construed as “total transmission efficiency, Ouderkirk also teaches that the diffuser has “a total transmission of greater than about 70% for the second polarization state.” Thus, even if Applicant is correct that 70% transmitted from the first state is actually 35% transmission efficiency, then it would be equally correct to say that another 35% is transmitted through the second polarization state. Therefore, Ouderkirk discloses a diffuser having “a diffuse light transmission efficiency of at least 65%.

The Examiner is missing the significance of the term “efficiency”. When that term is used, the calculation is an output value (diffuse output for example), divided by total output to measure the ability of the diffuser to diffuse specular light. On the other hand, “transmission” is a measure of the ability of the diffuser to transmit light and is the % of light output divided by light input, without regard to its diffuse, specular, or polar nature. It is noted first of all that the Ouderkirk statement is only related to transmission % of the two individual phases which is output divided by total input. There is no way it teaches anything about diffuse transmission efficiency which is based on a ratio of diffuse output to total output.

With respect to the relationship of this teaching to light transmission, it is not understood how the Examiner can interpret a statement by the reference that expressly relates to being the total transmission of only one phase to be the total transmission of the diffuser. Further, as the Declaration demonstrates, since each input phase represents half of the light input, one has to weight the two values at 50% using basic mathematics so that the combination of the two phases provides a transmission of $70/2 + 35/2 = 52.5\%$ which is less than the claim limitation of 80%.

Applicant also argues that the Ouderkirk reference fails to specifically disclose that the light diffuser exhibits a light transmission that is greater than 80%, and more specifically in dependent claim 11 which is greater than 87%. However, Examiner disagrees. First, nowhere is “total” light transmission recited in the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Second, Ouderkirk clearly teaches a diffuser with transmission at 87.1% (col. 29, lines 8-9).

Applicants believe that there is no ambiguity about the unmodified term “light transmission” as meaning the percentage of total output divided by total input. This is confirmed by all examples in the case and the definitions at pages 5 and 27 of the specification. No other meaning is given to the term and it is the normal meaning of the term. Any perceived confusion comes about when one ignores modifying terms in the specification or cited art such as “of one phase” or “efficiency”.

In view of the foregoing remarks and the enclosed Declaration, the Examiner is respectfully requested to withdraw the outstanding final rejection and to pass the subject application to Allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A. Kluegel', written over a horizontal line.

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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.

Encl: Declaration Under Rule 132